<u>RAW SEQUENCE LISTING</u>

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

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Source: _____ IFWP _____

Date Processed by STIC: _____ 03/21/2007 _____

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PATENT APPLICATION: US/10/562,383A TIME: 10:56:21

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260 ccccggttgc agctgggaag gctcactggc tggaaagagg tgcctcctcc ttccagcaaa          420
261 gggccctgtt tggaagggct gcttctcacc tgtctagtgg caccacagga cggtcggctt          480
262 ccactcgaat tcccccggac ggtatcatca catagccggg tcctcgcagt gttggtttcc          540
263 caatccgatg actgtcacct cggtgaggac ctgtgctgat ggccggagaa ccctgcgctg          600
264 cgggcgcaca tggccaggtg gcgcctggca ggcgacgtcc gggtgcagga cggcgctctt          660
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 03/21/2007
PATENT APPLICATION: US/10/562,383A   TIME: 10:56:22

Input Set : N:\RJAVED\10562383.TXT
Output Set: N:\CRF4\03212007\J562383A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:51; N Pos. 2126,2128,2131,2132
Seq#:404; N Pos. 2126,2128,2131,2132
Seq#:405; N Pos. 113,114,117,119
Seq#:520; N Pos. 2126,2128,2131,2132
Seq#:521; N Pos. 113,114,117,119

VERIFICATION SUMMARY   DATE: 03/21/2007
PATENT APPLICATION: **US/10/562,383A**   TIME: 10:56:22

Input Set : **N:\RJAVED\10562383.TXT**
Output Set: **N:\CRF4\03212007\J562383A.raw**

```
L:0 M:201 W: Mandatory field data missing, <130> FILE REFERENCE
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:2975 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:2100
L:13003 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:404 after pos.:2100
L:13023 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:405 after pos.:60
L:19891 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:520 after pos.:2100
L:19912 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:521 after pos.:60
L:28189 M:283 W: Missing Blank Line separator, <400> field identifier
L:28190 M:112 C: (48) String data converted to lower case,
L:28202 M:283 W: Missing Blank Line separator, <400> field identifier
L:28203 M:112 C: (48) String data converted to lower case,
L:28214 M:283 W: Missing Blank Line separator, <400> field identifier
L:28215 M:112 C: (48) String data converted to lower case,
L:28226 M:283 W: Missing Blank Line separator, <400> field identifier
L:28227 M:112 C: (48) String data converted to lower case,
L:28238 M:283 W: Missing Blank Line separator, <400> field identifier
L:28239 M:112 C: (48) String data converted to lower case,
L:28250 M:283 W: Missing Blank Line separator, <400> field identifier
L:28251 M:112 C: (48) String data converted to lower case,
L:28262 M:283 W: Missing Blank Line separator, <400> field identifier
L:28263 M:112 C: (48) String data converted to lower case,
L:28274 M:283 W: Missing Blank Line separator, <400> field identifier
L:28275 M:112 C: (48) String data converted to lower case,
L:28286 M:283 W: Missing Blank Line separator, <400> field identifier
L:28287 M:112 C: (48) String data converted to lower case,
L:28298 M:283 W: Missing Blank Line separator, <400> field identifier
L:28299 M:112 C: (48) String data converted to lower case,
L:28310 M:283 W: Missing Blank Line separator, <400> field identifier
L:28311 M:112 C: (48) String data converted to lower case,
L:28322 M:283 W: Missing Blank Line separator, <400> field identifier
L:28323 M:112 C: (48) String data converted to lower case,
L:28334 M:283 W: Missing Blank Line separator, <400> field identifier
L:28335 M:112 C: (48) String data converted to lower case,
L:28346 M:283 W: Missing Blank Line separator, <400> field identifier
L:28347 M:112 C: (48) String data converted to lower case,
L:28358 M:283 W: Missing Blank Line separator, <400> field identifier
L:28359 M:112 C: (48) String data converted to lower case,
L:28370 M:283 W: Missing Blank Line separator, <400> field identifier
L:28371 M:112 C: (48) String data converted to lower case,
L:28382 M:283 W: Missing Blank Line separator, <400> field identifier
L:28383 M:112 C: (48) String data converted to lower case,
L:28394 M:283 W: Missing Blank Line separator, <400> field identifier
L:28395 M:112 C: (48) String data converted to lower case,
L:28406 M:283 W: Missing Blank Line separator, <400> field identifier
L:28407 M:112 C: (48) String data converted to lower case,
L:28418 M:283 W: Missing Blank Line separator, <400> field identifier
L:28419 M:112 C: (48) String data converted to lower case,
L:28430 M:283 W: Missing Blank Line separator, <400> field identifier
```

VERIFICATION SUMMARY   DATE: 03/21/2007
PATENT APPLICATION: **US/10/562,383A**   TIME: 10:56:22

Input Set : **N:\RJAVED\10562383.TXT**
Output Set: **N:\CRF4\03212007\J562383A.raw**

```
L:28431 M:112 C: (48) String data converted to lower case,
L:28442 M:283 W: Missing Blank Line separator, <400> field identifier
L:28443 M:112 C: (48) String data converted to lower case,
L:28454 M:283 W: Missing Blank Line separator, <400> field identifier
L:28455 M:112 C: (48) String data converted to lower case,
L:28466 M:283 W: Missing Blank Line separator, <400> field identifier
L:28467 M:112 C: (48) String data converted to lower case,
L:28478 M:283 W: Missing Blank Line separator, <400> field identifier
L:28479 M:112 C: (48) String data converted to lower case,
L:28490 M:283 W: Missing Blank Line separator, <400> field identifier
L:28491 M:112 C: (48) String data converted to lower case,
L:28502 M:283 W: Missing Blank Line separator, <400> field identifier
L:28503 M:112 C: (48) String data converted to lower case,
L:28514 M:283 W: Missing Blank Line separator, <400> field identifier
L:28515 M:112 C: (48) String data converted to lower case,
L:28526 M:283 W: Missing Blank Line separator, <400> field identifier
L:28527 M:112 C: (48) String data converted to lower case,
L:28538 M:283 W: Missing Blank Line separator, <400> field identifier
L:28539 M:112 C: (48) String data converted to lower case,
L:28550 M:283 W: Missing Blank Line separator, <400> field identifier
L:28551 M:112 C: (48) String data converted to lower case,
L:28562 M:283 W: Missing Blank Line separator, <400> field identifier
L:28563 M:112 C: (48) String data converted to lower case,
L:28574 M:283 W: Missing Blank Line separator, <400> field identifier
L:28575 M:112 C: (48) String data converted to lower case,
L:28583 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:28586 M:283 W: Missing Blank Line separator, <400> field identifier
L:28587 M:112 C: (48) String data converted to lower case,
L:28598 M:283 W: Missing Blank Line separator, <400> field identifier
L:28599 M:112 C: (48) String data converted to lower case,
L:28610 M:283 W: Missing Blank Line separator, <400> field identifier
L:28611 M:112 C: (48) String data converted to lower case,
L:28622 M:283 W: Missing Blank Line separator, <400> field identifier
L:28623 M:112 C: (48) String data converted to lower case,
L:28634 M:283 W: Missing Blank Line separator, <400> field identifier
L:28635 M:112 C: (48) String data converted to lower case,
L:28646 M:283 W: Missing Blank Line separator, <400> field identifier
L:28647 M:112 C: (48) String data converted to lower case,
L:28661 M:112 C: (48) String data converted to lower case,
L:28672 M:283 W: Missing Blank Line separator, <400> field identifier
L:28674 M:112 C: (48) String data converted to lower case,
L:28685 M:283 W: Missing Blank Line separator, <400> field identifier
L:28686 M:112 C: (48) String data converted to lower case,
L:28697 M:283 W: Missing Blank Line separator, <400> field identifier
L:28698 M:112 C: (48) String data converted to lower case,
L:28709 M:283 W: Missing Blank Line separator, <400> field identifier
L:28710 M:112 C: (48) String data converted to lower case,
L:28721 M:283 W: Missing Blank Line separator, <400> field identifier
L:28722 M:112 C: (48) String data converted to lower case,
```

VERIFICATION SUMMARY   DATE: 03/21/2007
PATENT APPLICATION: **US/10/562,383A**   TIME: 10:56:22

Input Set : **N:\RJAVED\10562383.TXT**
Output Set: **N:\CRF4\03212007\J562383A.raw**

```
L:28733 M:283 W: Missing Blank Line separator, <400> field identifier
L:28734 M:112 C: (48) String data converted to lower case,
L:28745 M:283 W: Missing Blank Line separator, <400> field identifier
L:28746 M:112 C: (48) String data converted to lower case,
L:28758 M:283 W: Missing Blank Line separator, <400> field identifier
L:28759 M:112 C: (48) String data converted to lower case,
L:28770 M:283 W: Missing Blank Line separator, <400> field identifier
L:28771 M:112 C: (48) String data converted to lower case,
L:28783 M:283 W: Missing Blank Line separator, <400> field identifier
L:28784 M:112 C: (48) String data converted to lower case,
L:28795 M:283 W: Missing Blank Line separator, <400> field identifier
L:29116 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:30498 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:30980 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:34255 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:34484 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:35379 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:36024 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:36796 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:38225 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:39362 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:40038 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:41461 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:42561 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:44277 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:44568 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:46405 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:46829 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:47834 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:48971 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:49369 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:51974 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:53474 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:53991 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:54330 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:54848 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:55174 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:55331 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:55622 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:56018 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:58470 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:58761 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:60801 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:62193 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:63909 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:64739 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:65852 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:66625 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:67397 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
```

VERIFICATION SUMMARY   DATE: 03/21/2007
PATENT APPLICATION: **US/10/562,383A**   TIME: 10:56:22

Input Set : **N:\RJAVED\10562383.TXT**
Output Set: **N:\CRF4\03212007\J562383A.raw**

```
L:68170 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:68942 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:69715 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:75147 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:75465 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:77944 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:78582 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:79623 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:81035 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:81697 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:83074 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:148241 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11096) SEQUENCE:
L:148246 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11097) SEQUENCE:
L:148251 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11098) SEQUENCE:
L:148256 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11099) SEQUENCE:
L:148261 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11100) SEQUENCE:
L:148266 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11101) SEQUENCE:
L:148271 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11102) SEQUENCE:
L:148276 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11103) SEQUENCE:
L:148281 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11104) SEQUENCE:
L:148286 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11105) SEQUENCE:
L:148291 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11106) SEQUENCE:
L:148296 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11107) SEQUENCE:
L:148301 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11108) SEQUENCE:
L:148306 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11109) SEQUENCE:
L:148311 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11110) SEQUENCE:
L:148316 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11111) SEQUENCE:
L:148321 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11112) SEQUENCE:
L:148326 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11113) SEQUENCE:
L:148331 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11114) SEQUENCE:
L:148336 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11115) SEQUENCE:
L:148341 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11116) SEQUENCE:
L:148346 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11117) SEQUENCE:
L:148351 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11118) SEQUENCE:
L:148356 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11119) SEQUENCE:
L:148361 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11120) SEQUENCE:
L:148366 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11121) SEQUENCE:
L:148371 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11122) SEQUENCE:
L:148376 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11123) SEQUENCE:
L:148381 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11124) SEQUENCE:
L:148386 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11125) SEQUENCE:
L:148391 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11126) SEQUENCE:
L:148396 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11127) SEQUENCE:
L:148401 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11128) SEQUENCE:
L:148406 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11129) SEQUENCE:
L:148411 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11130) SEQUENCE:
L:148416 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11131) SEQUENCE:
L:148421 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11132) SEQUENCE:
L:148426 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11133) SEQUENCE:
```

VERIFICATION SUMMARY   DATE: 03/21/2007
PATENT APPLICATION: **US/10/562,383A**   TIME: 10:56:22

Input Set : **N:\RJAVED\10562383.TXT**
Output Set: **N:\CRF4\03212007\J562383A.raw**

```
L:148431 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11134) SEQUENCE:
L:148436 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11135) SEQUENCE:
L:148441 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11136) SEQUENCE:
L:148446 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11137) SEQUENCE:
L:148451 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11138) SEQUENCE:
L:148456 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11139) SEQUENCE:
L:148461 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11140) SEQUENCE:
L:148466 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11141) SEQUENCE:
L:148471 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11142) SEQUENCE:
L:148476 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11143) SEQUENCE:
L:148481 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11144) SEQUENCE:
L:148486 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (11145) SEQUENCE:
```